

45.
YEARS
2021



HEAVY MACHINERY SPARE PARTS

THE ADDRESS OF THE
WORLD'S BEST BRANDS

WIDE VARIETY
AVAILABLE STOCKS
COMPETITIVE PRICES



G.E.T. and
UNDERCARRIAGE PARTS
FOR HEAVY MACHINERY



EXCLUSIVE DISTRIBUTOR



BRANDS



ITR: Undercarriage Parts, Final Drive Parts, Cylinder Heads, Engine Parts, Pumps, Gears, Ground Engaging Tools, Side Frames to be Welded, Side Frames with Bolted Flanges, Side Frames with Pivot Point, Side Frames with Cross Beams.



ITR BLACK CAT: Boron & Carbon Steel Grader Blades, Cutting Edges, End Bits and Segments.



FEDERAL MOGUL: Engine Parts, Pistons, Liners, Piston Rings, Gasket Kits, O-rings, Seals, Cup-Cone Bearings



GOETZE: Pistons for Caterpillar® Liners and Piston Rings



DISA: Original quality Fuel and Injector Systems.



FMC Friction Marketing: Transmission, Brake Discs and Plates.



Excavator Tracks, Grader Blades, Cutting Edges in all sizes for all brands.



Gasket Kits, O-Rings, Seals and Sealing elements for Caterpillar®

SPARE PARTS



Quality makes the brand. USCO has the Engineering and R&D Departments from a qualitative and a quantitative point of view developing strong design expertise. Another important aspect that makes the ITR repair parts stand out lies in the numerous quality controls carried out at its production plants. These controls guarantee that the high level of quality is maintained for all the macro areas in which the repair parts department is divided, that is to say, engine, hydraulic, transmission and frame parts being the pulsating heart of an earth moving machine must be kept under tight and constant control.

SPARE PARTS



CRANKSHAFTS

Crankshafts for Caterpillar®

3116 3204 3208 D330 D333 3304 3306 D343 3406 3408 3412

Crankshafts for Komatsu®

Engine types

6D95 6D102 6D110 6D114 6D125 4D130 6D140 6D155 NH220 6BT 6CT

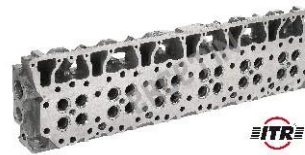


CYLINDER HEADS AND ENGINE BLOCKS

Engine Blocks and Cylinder Heads for Caterpillar® and Komatsu®

Engine Types

3204 3208 D330C 3304 3306 D342 D343 D398 3406 3408 3412 3508 3512 3516



GEARS

Swing Circle, Bevel Gear & Gears



PUMPS

Hydraulic Pumps, Transmission Pumps, Steering Pumps, Water Pumps



ITR is well known for providing the most extensive coverage of repair parts in the industry. The product range includes over 30.000 stock items, including engine parts, hydraulic parts, friction components, cooling system products, torque converter parts, electric components, brake parts, transmission and clutch components, differential and final drive, along with frame parts. ITR is well known for providing the most extensive coverage of repair parts in the industry. The product range includes over 30.000 stock items, including engine parts, hydraulic parts, friction components, cooling system products, torque converter parts, electric components, brake parts, transmission and clutch components, differential and final drive, along with frame parts.

UNDERCARRIAGE PARTS

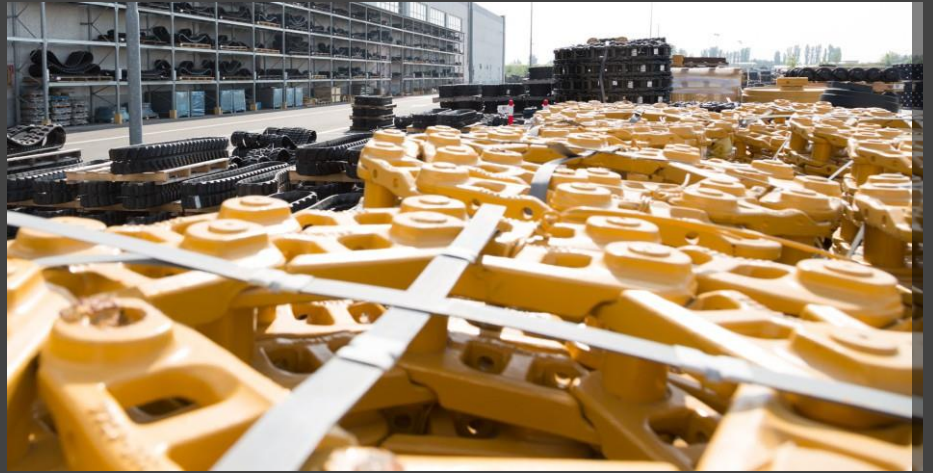


Links surfaces are hardened to 50 HRC to a 12 mm depth, the core is hardened to 32 HRC and have long operating life. Polyurethane seals and steel rings used for lubricated chains to provide long wear off and also long-term sealing. Pin and Bushing surface is hardened to 58 HRC to a 4 mm depth, the core is hardened to 34 HRC.

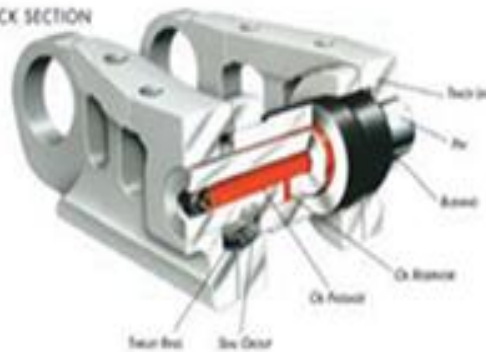
CHAINS



A fundamental characteristic of the undercarriage product line is that its production is entirely managed in-house: from design of the component to the choice of material through to production. Numerous quality controls are carried out starting from raw material purchasing based on the know-how and expertise in the field of metallurgical processes and metal materials



TRACK SECTION



Sealed and Lubricated Track Links

UNDERCARRIAGE PARTS



The undercarriage line includes a vast range of components among which chains, shoes, rollers, sprockets, idlers and segments entirely manufactured at the plants of the Group. The ITR undercarriage is studied and designed in the Engineering and R&D Departments of the Group using CAD systems and with the collaboration of partner universities.

TRACK ROLLERS AND TOP ROLLERS



Heavy Duty type Duo Cone (with Seal Groups) shafts are forged, surface hardened to 56-60 HRC to a 3 mm depth track rollers and top rollers. These products are under 1800 work hours warranty as USCO standards.

IDLERS

A special heat treatment on working surfaces, long-wear off, with or without brackets.



SPROCKETS and SEGMENTS

One of the most important part of the undercarriage is Sprocket. ITR Sprockets' External Profiles hardened with induction to 50 HRC steel casting.

Segments are Forged Steel and completely hardened.



PINS AND BUSHINGS

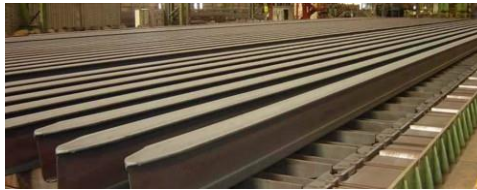
ITR manufactures Pin and Bushing for all machine models. Running surfaces of Pin and Bushing hardened with induction, hardened to 58 HRC to a 4mm depth and the core hardened to a 34 HRC.



DUFERDOFIN
TRACK SHOES



DUFERDOFIN EXCAVATOR TRACK SHOES



Duferdofin  NUCOR

RUBBER TRACKS



ITR rubber tracks are designed and manufactured with state of the art technology to provide excellent quality and durability. Years of experience field testing and design studies all contribute to ITR rubber tracks success. ITR's CONTINUES STEEL CABLE SYSTEM is field proven to provide better performance than competitive products using the overlapped cable system designs

RUBBER TRACKS



ITR, broad rubber track coverage includes conventional and interchangeable tracks, long and short pitch tracks, wide and narrow guide designs and tracks, with crawler widths from 130 mm to 800 mm. Our sizes and track designs cover a wide range of applications from skid steers, to combines, to drilling machines and excavators up to 16 tons.

RUBBER ALLOYS

- Improved Performance
- Harmonization of hardness and elasticity

STEEL CABLE SYSTEM

- Reinforced High-Strength
- Excellent tensile distribution

STEEL ALLOY

- Selection of high quality steel
- Forging steel bars

APPLICATION AREAS

- Excavators
- Asphalt Machines
- Crawler Loaders
- Harvesters

FEATURES

- To collide with Design
- Fixed Roller Supplements
- Long Life

ITR Rubber Tracks are engineered to guarantee comfort and reliability through constant improvements in technology and innovation. ITR tracks are designed and manufactured to decrease vibration, reduce ground pressure and increase traction and stability.



GROUND ENGAGING TOOLS (GET)



GET product line which is one of the most important in the ITR product mix. This line comprises all those components necessary for the manufacture, reconditioning and maintenance of buckets for graders, excavators and loaders. The extremely heterogeneous mix is made up of single and double bevels profiles, end-bit, blades, reinforcements, tips and adapters, fasteners and all those components necessary for excavation or levelling, such as rippers or blades for graders. demand.



GROUND ENGAGING TOOLS



Chemical and Mechanical Properties:

C	Si	Mn	Mo	Ni	Cr
028-0.32	0.30-0.60	0.80-1.25	0.80-1.2	1.25-1.75	1.25-1.7

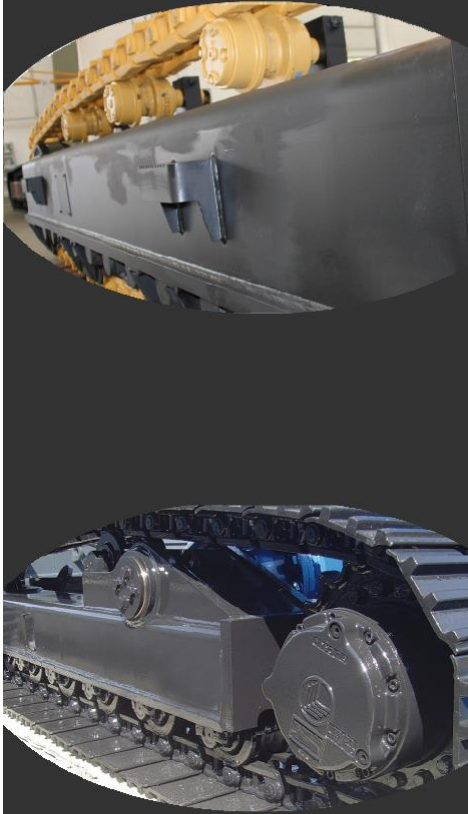
Surface Hardened (by product group): 40 -54HRC



- TIPS
- WELDED and BOLTED ADAPTERS
- TEETH
- RIPPER POINTS and RIPPER PROTECTORS
- CUTTING EDGES FOR BUCKETS
- BLADES and END BITS
- PROTECTION PARTS
- PINS AND RETAINERS

ITR offers wide range for the numerous brands, models and types of machine covers almost the entire demand.

SIDE FRAMES



THE SIDE FRAMES DESIGNED BY ITR AVAILABLE FOR MACHINES WITH A TOTAL WEIGHT BETWEEN 500 KG AND 200 TONS.

The following categories may be identified for this class of undercarriage:

1. Side frames to be welded
2. Side frames with flanges
3. Side frames with pivot points
4. Side frames with cross beams

The welded steel chassis are studied and designed for an optimal weight/resistance ratio. The side frames are characterized by their high reliability and flexibility on any kind of terrain. These frames are typically used for crushers, small drilling machines, conveyors, road pavers, milling machines.

SIDE FRAMES

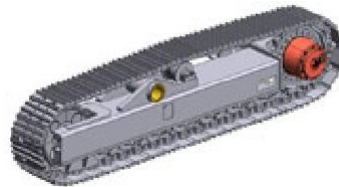
SIDE FRAMES TO BE WELDED



Crawled side frames B7 class, to be welded directly on the central body. Suitable for machines having a total weight up to 70 tons.

Max speed 3km/h, max output torque 100kNm

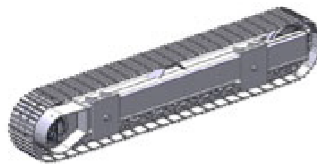
SIDE FRAMES WITH PIVOT POINT



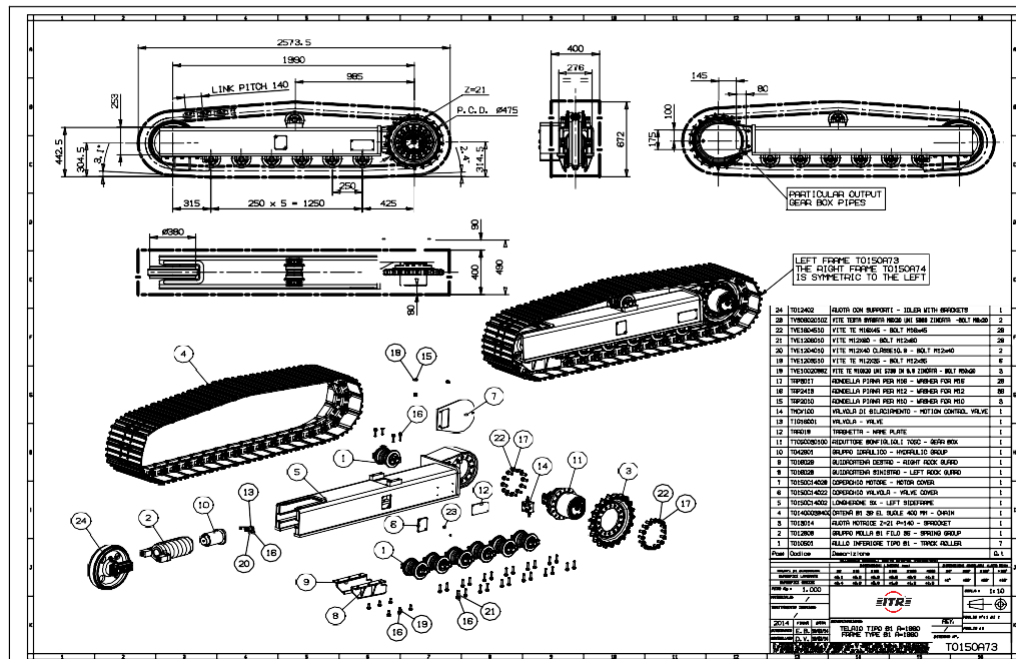
Crawled side frames FL6 class, to be attached to The chassis through a pivot point. Suitable for machines having a total weight up to 32 tons.

Max speed 2km/h, max output torque 26kNm.

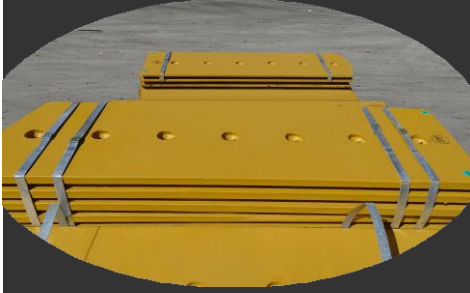
SIDE FRAMES WITH BOLTED FLANGES



Crawled side frames FL6 class, to be attached to the chassis through bolted flanges. Suitable for machines having a total weight up to 35tons. Max speed 2.1km/h, max output torque 36kNm.



[GRADER BLADES]



Forge Temp® Grader Blades and end bits are economical products made of high Carbon steel and developed for general using.

Max Temp® Grader Blades and end bits are made of Boron Steel that is hardened with applied heat treating and developed for heavy duty conditions. Offers high impact strength as well as abrasion resistance.

Heat-treated Boron steel grader blades and end bits provide maximum wear off. Have a life time up to two times more than Carbon blades.

GRADER BLADES

TECHNICAL SPECIFICATIONS

• CARBON STEEL GRADER BLADES

%C	%Mn	%Si
0,70	0,60	0,25
0,90	0,90	0,40

HARDNESS: 270 - 290 HBN

• BORON STEEL GRADER BLADES

%C	%Mn	%Si	%B
0,28	0,80	0,15	0,0005
0,35	1,25	0,40	0,003

HARDNESS: 480 - 520 HBN



BOLTS AND NUTS PINS AND SEGMENTS



As the chart above shows, 12.9 quality Bolts have at least %20 to %40 higher mechanical values than 10.9 and 8.8 quality bolts and robust at this rate.

Fiber structure of the material remains constant through Cold forging Technology; this increases the strength of the bolts. Additionally, they have much better surface quality and dimensional tolerance.

BOLTS AND NUTS



12.9 QUALITY PLOW, TRACK, SPROCKET BOLTS AND NUTS WITH ALL VARIETY

(Metric and inch sizes)

All ITR Bolts are 12.9 quality and produced Cold Forging Technology

Mechanical Properties of Bolts

Bolt Quality	Tensile Strenght	Yield Strenght
12.9	1.200 N/mm2	1080 N/mm2
10.9	1.000 N/mm2	900 N/mm2
8,8	800 N/mm2	640 N/mm2

PIN and SEGMENTS



ENGINE PARTS



Federal-Mogul's FP Diesel brand is a leading premium brand of heavy-duty engine parts and gaskets, offering a comprehensive range of precision-engineered components for the construction, marine, agricultural, mining, gas compression, trucking and industrial sectors.

ENGINE PARTS

Specially Manufactured OEM quality Engine Parts for Caterpillar® Engines

- PISTONS
- LINERS
- PISTON RINGS
- PINS
- BEARINGS
- GASKET KITS
- VALVES
- LINER KITS
- CAMSHAFTS
- CUP-CONE BEARINGS
- SEALS
- O-RINGS



FP DIESEL

 **GOETZE**

FUEL INJECTION SYSTEMS
AND TURBOS

World well-known, Italian DISA® manufactures original quality Fuel and Injector Systems.

- Injectors
- Nozzles
- Glow Plugs
- Injector Element
- Pump Pistons and Cylinders



FUEL INJECTION SYSTEMS AND TURBOS

Caterpillar® 3500 Series Injectors

Caterpillar® 7000 Series Nozzles

Caterpillar® EUI Injectors - 3406E/C15 - 3196/C12

Caterpillar® MUI Injectors - 3114/3116

Caterpillar® Power Stroke HEUI Injectors - 3126 - 3126B/E

Caterpillar® Fuel System Line Seals

Caterpillar® Glow Plugs

Caterpillar® Pump Pistons and Cylinders



Turbochargers and Cartridges for Caterpillar® and Komatsu®

Schwitzer® and Garrett® branded Turbochargers and Cartridges are available for all Caterpillar® models.



Schwitzer

DISA

Garrett®
by Honeywell

ENGINES

ORIGINAL BRAND NEW COMPLETE ENGINES



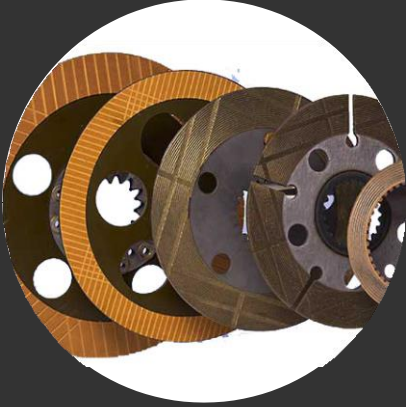
ENGINE MODELS :

C4.4 - C6.6 - C6.4 - 3116 - 3126 - C7
C9 - 3176 - 3196 - 3406E 3408E - 3412

ORIGINAL BRAND NEW
COMPLETE ENGINES ARE
AVAILABLE IN STOCK



DISC, PLATES and
BEARINGS

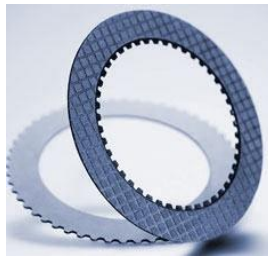


Products are precision engineered in own state-of-the-art production facilities. Products are precision engineered in own state-of-the-art production facilities. This ensures the quality of raw materials and the quality throughout all manufacturing processes to the final inspection. FMC plays a strategic role in the OEM supply of materials to our market.



DISC, PLATES AND BEARINGS

FMC® was established in the United Kingdom with a specific goal to supply products to the Earthmoving and Mining Equipment Industry. FMC specialist in the field of "wet" friction materials and products which include sintered metallic, advanced friction paper, carbon, molybdenum, graphite and steel counter plates are used in a wide variety of heavy duty transmissions, clutch and brake applications.



All varieties BOWER, NTN, TIMKEN, LINK BELT, and BCA branded Cup Cone Bearings are available in stocks.



NTN•BOWER



ITR Modena / İTALYA



**HEAVY MACHINERY SPARE PARTS
CONSTRUCTION AND TRADING LTD. CO.**

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Duferdofin INUCOR